

31 January 2022

# **Quarterly Activities Report - December 2021**

- Lake Wells SOP Project (LSOP) is a 100% borefield development with no reliance on trench abstraction
  - > 25% of bores scheduled at operational start-up have been drilled (20 of 79)
  - > 36% of volume of brine scheduled at operational start-up from the Western Borefield has been pump tested (176 litres per second of 488L/s from this borefield)
  - Drill contractor performance approximately 14 shifts per developed bore
- LSOP fully permitted with Mining Leases, Mining Proposal, Mine Closure Plan and full Environmental Approval in place
- Inaugural Community Engagement Meeting held under the approved Cultural Heritage Management Plan (CHMP)
- Syndicated debt facility approvals progressed through the quarter
  - NAIF credit approved A\$140million, EFA conditional credit approved A\$45million
  - Commercial banks (2) looking to close out their processes over Q1 2022
- Laverton Training Centre refurbishment progressed with first trainee intake planned for February 2022

Australian Potash Limited (ASX: APC or the Company) is pleased to provide its Quarterly Activities Report for the period ending 31 December 2021.

Managing Director and CEO, Matt Shackleton, commented: "Site activities during the quarter progressed in line with the development schedule and we are pleased to report the completion of drilling on 20 of the 79 scheduled production bores. The LSOP palaeochannel (or ancient river) production bores have an average depth of more than 160 metres, giving rise to Australia's largest Measured JORC compliant SOP resource of just over 18 million tonnes of SOP#. With each additional bore we develop we continue to de-risk the supply of brine to the evaporation pond network. The evaporation pond network is integral to a successful solar salt project, and a continuous and predictable brine supply is integral to the success of the pond network.

"The emerging SOP sector in Western Australia has undoubtedly been negatively affected by the technical and corporate challenges the early movers in the peer space have encountered, with investor sentiment putting pressure on market capitalisations. At the same time however, the pandemic has highlighted the growing importance of food security and supply chains, and we are seeing a very strong pricing market into at least the middle of the decade for SOP. Australia currently imports 100% of its potassic fertiliser demand.

"The Laverton Training Centre progressed well during the quarter, with this Company initiative garnering support from local industry and, importantly, the Shire of Laverton and WA government. Targeting remote Aboriginal people with little or no access to formal vocational training and support, we are looking forward to the LTC's inaugural intake of trainees through the current quarter.

"In addition, through the current quarter we aim to progress the development of the bore field, the syndicated debt facility, and to finalise the US based test-work program that leads into final vessel designs and dimensions."





## **Operational Update**

## Lake Wells Sulphate of Potash Project (LSOP)

### **Project Development**

Development of the borefields continued throughout the December 2021 quarter. At the end of the reporting period, a total of 15 new bores had been developed, of the total 76 *new* bores scheduled to be developed throughout Project construction. A further three (3) existing bores make up the balance of the 79 brine bores which was identified as the optimised borefield design in the LSOP Front End Engineering Design Study (**FEED**)<sup>1</sup>.

### **Pump Test Program**

A program of step rate testing commenced in mid-October 2021 to obtain information on the condition and efficiency of selected production bores drilled to date.

Table 1 highlights the short term pumping testing results for the bores that have been tested at the LSOP.

Table 1: Summary of results from short term pumping testing program to date

Bore #	Modelled flow rate (litres/sec)	Maximum flow rate* (litres/sec)	Bore diameter (inch)	
WB13	4	5	8	
WB19	4	18	8	
WB32	12	29	8	
WB33	10	39	8	
WB34	11	44	10	
WB35	10	34	8	
WB36	10	13	8	
WB37	11	44	8	
WB38	18	21	10	
WB39	18	32	8	
WB40	18	>46^	10	

Notes:

Initial pumping test analysis only provides a maximum rate that the bore can be pumped under prevailing conditions. The long-term maximum pumping rate will be lower due to drawdown interference from other pumped bores and boundary effects due to the size of the aquifer. The maximum flow rates (in Table 1 above) are not used to determine pump sizes for permanent installation, rather the maximum rate provided by an initial test pumping analysis provides an upper limit on the size of the pump.

### Reconciliation to the hydro model

During the FEED level of optimisation, external consultants AQ2 developed a hydrogeological model for the proposed development of the LSOP<sup>1</sup>. This model is constantly updated with additional data as that data is generated in the field. Short term pumping testing allows the reconciliation of the modelled early-time flow rate at each bore to the actual early-time flow rate likely to be recorded in operations. It is very encouraging to see evidence from short term testing consistent with the currently modelled flow rates.

Australian Potash Limited (ASX:APC)
Page 2 of 12

<sup>\*</sup>Based on single bore rate of operations

<sup>^</sup>Due to undersized test pumping equipment, a maximum flow rate was not able to be determined for bore WB40

<sup>&</sup>lt;sup>1</sup> Refer ASX Announcement 20 April 2021





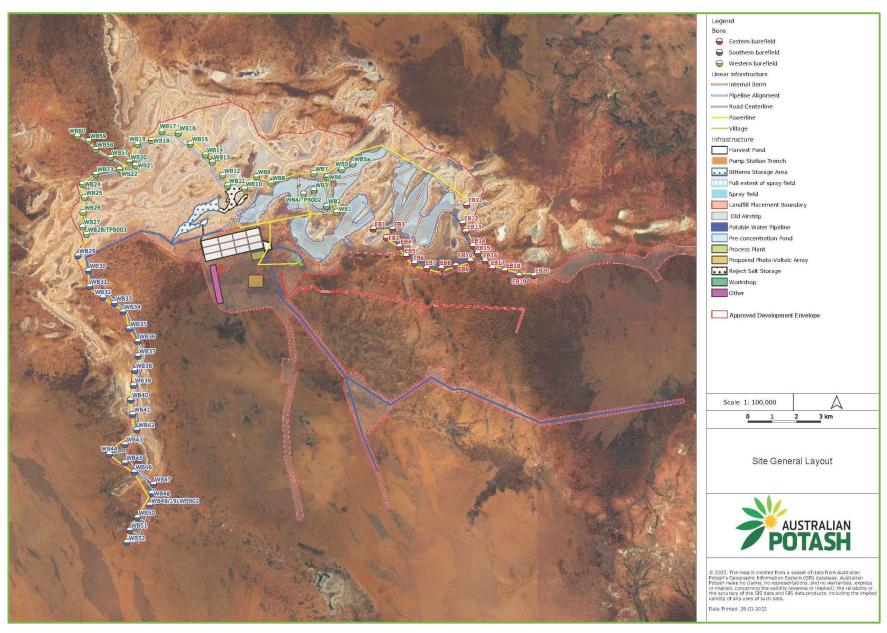


Figure 1: Site General Layout

Australian Potash Limited (ASX:APC)
Page 3 of 12







Figure 2: Borefield drilling



Figure 3: Borefield drilling

## Planned activities for March 2022 quarter include:

- Commercial banks' credit approvals process finalisation; documentary close on syndicated debt facility;
- Bore drilling and development to continue with a target of between 30% and 50% of the borefield by volume developed through Q1 2022;
- Short term pumping testing to continue, with a transition to extended testing;
- Processing test-work program to be accelerated to facilitate detailed vessel sizing and design; and
- Capital estimates being optimised ahead of final investment decision.





### **Approvals**

Mining Leases (M38/1287, M38/1288, M38/1289) were granted in early October 2021. The grant of these tenements secures mining lease tenure across the LSOP development area.

Subsequent to quarter end, approval was received from the Environmental Protection Authority for changes to the Lake Wells Potash Project (Ministerial Statement 1162). The changes reflect the updated operational scope since the original environmental application was submitted in December 2017. The Department of Mines, Industry Regulation and Safety also approved the Lake Wells Potash Project Mining Proposal, and Mine Closure Plan, which permits the commencement of mining operations.

### **Laverton Training Centre**

The Laverton Training Centre (LTC) is an initiative of Australian Potash Limited which provides access to nationally accredited vocational training for long-term unemployed Aboriginal people living in this remote part of Western Australia.

The LTC training ethos is modelled on the highly successful Martu-ku Yiwarra Training Centre in Wiluna, a unique four-year pilot remote Aboriginal vocational training program which was funded by local employers, overseen by Martu Elders (ie. remote Aboriginal self-determination and empowerment), and had training delivered by Central Regional TAFE Kalgoorlie (**CRTAFE**) as the registered training organisation.

With clear proof of concept, and now operating from the LTC in Laverton, this unique and successful remote Aboriginal vocational training project is better located to service the entire north-eastern Goldfields catchment (including Wiluna).

With the ongoing support of CRTAFE, the Department of Training and Workforce Development, the Department of Biodiversity, Conservation and Attractions, all existing and emerging Aboriginal Ranger programs across the north-eastern Goldfields, and the Shire of Laverton, it is intended that the LTC will quickly become a unique example of a successful industry-led training and employment endeavour, in partnership with all three levels of government (federal, state and local), and in consultation with remote Aboriginal communities.



Figure 4: Goldfields Esperance Development Commission and Shire of Laverton personnel visiting the LTC

Australian Potash Limited (ASX:APC) Page 5 of 12





Soon to be pursuing charity status with the Australian Charities and Not-for-profits Commission, the LTC will look to industry to fund its annual capital and operating expenditure. Located prominently at the beginning of the Great Central Road, it is anticipated that the LTC will become funding self-sufficient within the first year of operations. The initial intake of trainees is programmed for Q1 2022.

Refurbishment of the dedicated LTC facility at 2 Crawford Street, Laverton began in August 2021 and is ongoing through early 2022. The initial focus is on improving the existing infrastructure and installing or building the additional infrastructure required to enable the facility to meet its objectives.



Figure 5: Five 40-foot containers of training equipment, a dome shelter and additional storage equipment being delivered for installation





Figures 6 & 7: Renovation of plumbing, electrical, fencing at the LTC

## Other progress to date includes:

- The LTC successfully negotiated a significant contribution of training infrastructure and equipment from CRTAFE;
- A purpose-built campsite has been constructed by the Shire of Laverton in consultation with the LTC, on the outskirts of Laverton to accommodate students coming in from remote northern and eastern Goldfields Aboriginal communities;
- The LTC engaged local Aboriginal Elders to facilitate the appropriate naming of the campsite: 'Ngurra Kanpi';

Australian Potash Limited (ASX:APC) Page 6 of 12





- The LTC and CRTAFE, in consultation with all of the north-eastern Goldfields Ranger programs, DBCA and other stakeholders, have negotiated nationally accredited training units and delivery dates for 2022;
- In addition to local Aboriginal people participation in LTC training, the LTC has facilitated the participation of Aboriginal Ranger programs based in Cosmo Newberry, Warburton, Wiluna (Birriliburu and MKK), Meekatharra, Leinster, Leonora and Tjuntjunjarra. DBCA will also facilitate Kalgoorlie-based remote area Aboriginal Rangers to attend some of our training;
- Australian Potash, on behalf of the LTC, has lodged a REDS Grant application with the Goldfields Esperance Development Commission for additional infrastructure and training equipment; and
- The LTC facilitated local artists to design the LTC logo (see right).



## **Funding**

Discussions with the syndicated debt facility lenders (Northern Australian Infrastructure Fund, Export Finance Australia, and commercial banks) are continuing in relation to progressing documentation and due diligence. The finalisation of the debt facility has been delayed due to additional technical due diligence requirements in light of the development challenges of the Company's Australian peers. Commercial banks have commenced their credit processes for the final tranche of the debt facility with outcomes expected in Q1 2022.

On 28 January 2022, APC agreed with Acuity Capital to extend the expiry date of its Controlled Placement Agreement (**CPA**) to 31 January 2024.

As previously announced, the CPA was initially established with an expiry date of 31 January 2021<sup>2</sup>. There is no requirement on the Company to utilise the CPA and there were no fees or costs associated with the extension of the CPA. Further, no additional security has been provided or required in relation to the CPA extension.

## Lake Wells Gold Project (LWGP)

The Lake Wells Gold Project is a joint venture with St Barbara Limited (**SBM**) for the exploration, development and mining of non-potash minerals. On 8 April 2021 it was announced that SBM had met the necessary expenditure commitment to earn a 70% interest in the LWGP. APC is free carried at 30% until the completion of a bankable feasibility study in the development of any non-potash resource.

Preliminary exploration work conducted by APC, and continued by SBM, has sought to understand the geology and mineralisation potential of the Yamarna area which hosts the fertile Yamarna Shear Zone.

Towards the end of the quarter APC was advised by its JV partner SBM that the 2021 program of stratigraphic and follow-up diamond drilling had been completed. The program comprised 16 diamond core holes, with RC pre-collars, that totalled 4,407m from 16 holes.

Logging and sampling of the drill core will continue into early Q1 2022, with all results expected to be finalised within this current quarter. APC will advise its shareholders immediately of any significant results.

<sup>&</sup>lt;sup>2</sup> Refer ASX announcement 28 February 2020





### **Laverton Downs Project (LDP)**

The Laverton Downs Project is 100% owned by APC and located approximately 20km north of Laverton. Regional geology highlights the potential for gold and nickel sulphide mineralisation. Project evaluation undertaken by APC incorporating regional datasets, detailed magnetic data and high precision geochemical assay results derived from historical bottom of hole drill samples confirmed that a Kambalda-style nickel deposit host rock type is present within the LDP.

## **SOP Market Update**

#### **Fertiliser Markets**

Following a strong performance by all fertilisers in 2021, 2022 is showing signs of continued healthy returns due to several demand and supply factors. Factors driving the foreseeable elevated pricing environment include high input costs, supply constraints, and steady demand. These factors are expected to keep recent prices at their inflated levels until some of the upward pressure eases, such as softening demand due to affordability issues going through the entire food supply chain.

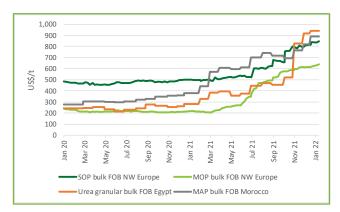




Figure 8: Global Fertiliser Prices<sup>3</sup>

Figure 9: SOP Prices<sup>3</sup>

### **Potash Markets**

Global potash prices are expected to maintain elevated levels for at least the first half of 2022 as supply issues remain in place, with pushback on affordability not yet realised (as evidenced by the most recent realised prices and short-term forecasts). Clarity on the impact of USA sanctions against Belarus has come to light early in the new year with that country's MOP producer – BPC – having supply contracts cancelled by Yara and its major supply route agreement terminated by Lithuania. This supply disruption represents approximately 40% of European supply and one third of the USA's import volume of MOP. Annual supply contracts with India and China are expected to be settled in the quarter, providing some stability or at least a floor price for the balance of 2022's MOP pricing environment.

Along with all fertilisers, SOP prices saw dramatic price increases throughout 2021 and are expected to continue posting high levels being influenced by the prevailing MOP prices. January 2022 prices show Northwest Europe granular SOP trading at US\$871/t, East Asia granular SOP trading at US\$795/t, and Australia granular SOP trading at US\$880/ $t^2$ . SOP prices historically delay reporting the impact of MOP prices and the current pricing dynamics suggest further SOP price rises heading into the new year.

APC is carrying an average, real life of mine SOP sales price of US\$550/tonne in its bank financial model<sup>4</sup>.

Australian Potash Limited (ASX:APC) Page 8 of 12

<sup>&</sup>lt;sup>3</sup> Source: Argus Consulting

<sup>&</sup>lt;sup>4</sup> Refer ASX announcement 20 April 2021





## Corporate Update

On 2 November 2021, the Company announced a \$12 million capital raising comprising a two tranche placement to sophisticated and professional investors and a share purchase plan at an issue price of \$0.08. The first tranche of the placement comprising 97,488,039 shares was completed on 9 November 2021. The share purchase plan opened on 22 November 2021 and closed on 13 December 2021.

The issue of the shares the subject of both the share purchase plan and the second tranche of the placement was conditional upon shareholder approval, which was received at the Company's annual general meeting on 15 December 2021 (**AGM**). A total of 52,511,961 placement shares and 5,962,500 share purchase plan shares were issued in mid-December 2021.

Other equity movements during the period comprised the expiry of unlisted options and issue of performance rights to employees.

As at the date of this report, the Company's capital comprises:

- 805,237,055 fully paid ordinary shares (ASX: APC)
- 7,782,776 unlisted performance rights
- 1,787,865 unlisted options exercisable at \$0.25 and expiring 15 April 2022
- 1,500,000 unlisted options exercisable at \$0.175 and expiring 29 July 2023

At the AGM, shareholders also considered the appointment of a new auditor to the Company. The change of auditor was made to align with the expectations of project financiers and KPMG's appointment follows the Australian Securities and Investment Commission's approval for the resignation of Hall Chadwick.

Non-Executive Chair Jim Walker resigned as a director of the Company following the AGM due to his other corporate commitments and Dr Natalia Streltsova was appointed to the role.

## **Financial Commentary**

The Quarterly Cashflow Report (Appendix 5B) for the period ending 31 December 2021 provides an overview of the Company's financial activities.

During the quarter, payments to related parties and their associates totalled \$227,000, comprising directors' salaries, fees and superannuation. In addition, a summary of the expenditure incurred during the quarter on the activities described in this report is as follows: exploration and evaluation (capitalised) \$5,813,000; exploration and evaluation (expensed) \$57,000; plant and equipment \$8,000; staff costs \$610,000; and administration and corporate costs \$322,000.

# Mining Tenement Holdings

In line with obligations under ASX Listing Rule 5.3.3, APC provides the following information relating to its mining tenement holdings as at 31 December 2021.

Area	Tenement	Interest at 1 September 2021	Action	Interest at 31 December 2021
Lake Wells	E38/1903	30% <sup>5</sup>	SBM earnt 70% interest; transfer pending	30% <sup>5</sup>
	E38/2113	30%5	SBM earnt 70% interest; transfer pending	30%5

<sup>&</sup>lt;sup>5</sup> Effective interest; transfer pending

Australian Potash Limited (ASX:APC) Page 9 of 12





Area	Tenement	Interest at 1 September 2021	Action	Interest at 31 December 2021
	E38/2114	100%	-	100%
	E38/2505	30%5	SBM earnt 70% interest; transfer pending	30% <sup>5</sup>
	E38/2901	30%		30%
E38/2988		30% <sup>5</sup>	SBM earnt 70% interest; transfer pending	30%⁵
	E38/3018	30%		30%
	E38/3021	30%		30%
	E38/3028	30%		30%
	E38/3039	100%	-	100%
	E38/3224	30%		30%
	E38/3225	30%		30%
	E38/3226	30%		30%
	E38/3270	30%		30%
	E38/3423	100%	-	100%
	ELA38/3637 <sup>6</sup>	100%	Application pending	100%
	LA38/350 <sup>6</sup>	100%	Application pending	100%
	LA38/351 <sup>6</sup>	100%	Application pending	100%
	LA38/352 <sup>6</sup>	100%	Application pending	100%
	LA38/356 <sup>6</sup>	100%	Application pending	100%
	LA38/357 <sup>6</sup>	100%	Application pending	100%
	LA38/359 <sup>6</sup>	-	Application 08/10/2021	100%
	LA38/260 <sup>6</sup>	-	Application 08/10/2021	100%
	M38/1274	100%	-	100%
	M38/1275	30% <sup>5</sup>	SBM earnt 70% interest; transfer pending	30%⁵
	M38/1276	100%	-	100%
	M38/1287	100%	Granted 11/10/2021	100%
	M38/1288	100%	Granted 11/10/2021	100%
	M38/1289	100%	Granted 11/10/2021	100%
	E38/2724 <sup>7</sup>	100%	-	100%
Laverton Downs	E38/3014 <sup>7</sup>	100%	-	100%
	E38/3132 <sup>7</sup>	100%	-	100%
	E38/3402 <sup>7</sup>	100%	-	100%
	E38/3403 <sup>7</sup>	100%	-	100%
	E38/3404 <sup>7</sup>	100%	-	100%
	ELA37/1388	100%	Application pending	100%
Darlot East	E37/1389	100%		100%
	E37/1390	100%		100%

No tenements are subject to any farm-in or farm-out agreements except those disclosed above.

Australian Potash Limited (ASX:APC) Page 10 of 12

 $<sup>^{\</sup>rm 6}$  Tenements held by Lake Wells Potash Pty Ltd, a wholly owned subsidiary of APC

 $<sup>^{7}</sup>$  Tenements held by Laverton Downs Pty Ltd, a wholly owned subsidiary of APC





This release was authorised by the Board of Directors.

### **Matt Shackleton**

Managing Director & CEO m.shackleton@australianpotash.com.au +61 (0) 438 319 841

### Michelle Blandford

Company Secretary <u>m.blandford@australianpotash.com.au</u> +61 (0) 408 088 295

#### **#Mineral Resource Estimate**

The information in this report that relates to the Mineral Resource is based on information announced to the ASX on 8 August 2019. APC confirms that it is not aware of any new information or data that materially affects the information included in the relevant market announcement, and that all material assumptions and technical parameters underpinning the Estimate in the relevant market announcement continue to apply.

Hydrogeological Unit	Volume of aquifer (MCM)	Specific Yield (mean)	Drainable Brine Volume (MCM)	K Concent <sup>n</sup> (mg/L, weighted mean value)	SOP Grade (mg/L, weighted mean value)	SOP Resource (MT)
Loam	5,180	10%	518	4,009	8,941	4.6
Upper aquitard	10,772	7%	754	3,020	6,735	5.1
Crete	479	5%	24	2,386	5,320	0.1
Upper sand	801	17%	136	3,435	7,660	1.0
Lower aquitard	9,502	8%	760	3,367	7,509	5.7
Mixed aquifer	440	17%	75	3,645	8,129	0.6
Basal sand	503	23%	116	3,415	7,616	0.9
Total (MCM/MT)	27,678		2,383	3,343	7,455	18.1

Measured JORC Mineral Resource Estimate for Lake Wells Sulphate of Potash Project based on modelled aquifer volume, specific yield and weighted mean K concentrations (derived from modelling)





### **About Australian Potash Limited**



APC holds a 100% interest in the Lake Wells Sulphate of Potash Project (LSOP), located approximately 500km northeast of Kalgoorlie, in Western Australia's Eastern Goldfields. The Company is finalising predevelopment plans for commencement of construction. First production from the LSOP is scheduled for 24 to 27 months from a Final Investment Decision.

K-Brite<sup>™</sup> is a registered trademark brand of Australian Potash Limited and the brand under which the suite of high quality, premium SOP products from the LSOP will be marketed.

APC holds a 100% interest in the **Laverton Downs Project,** located 5kms north of Laverton, in Western Australia's Eastern Goldfields.<sup>i</sup>

APC holds a 30% free-carried interest in the Lake Wells Gold Project, located 500kms northeast of Kalgoorlie, in Western Australia's Eastern Goldfields.

Please visit www.australianpotash.com.au for more information.

## **Forward Looking Statements**

This announcement contains forward-looking statements that involve a number of risks and uncertainties. These forward-looking statements are expressed in good faith and believed to have a reasonable basis. These forward-looking statements reflect current expectations, intentions or strategies regarding the future and assumptions based on currently available information. Should one or more of the risks or uncertainties materialise, or should underlying assumptions prove incorrect, actual results may vary from the expectations, intentions and strategies described in this or any other referenced announcement. No obligation is assumed to update forward-looking statements if these beliefs, opinions and estimates should change or to reflect other future developments.

Australian Potash Limited (ASX:APC)

<sup>&</sup>lt;sup>i</sup> Refer ASX Announcement 9 April 2021

<sup>&</sup>quot; Refer ASX Announcement 8 April 2021